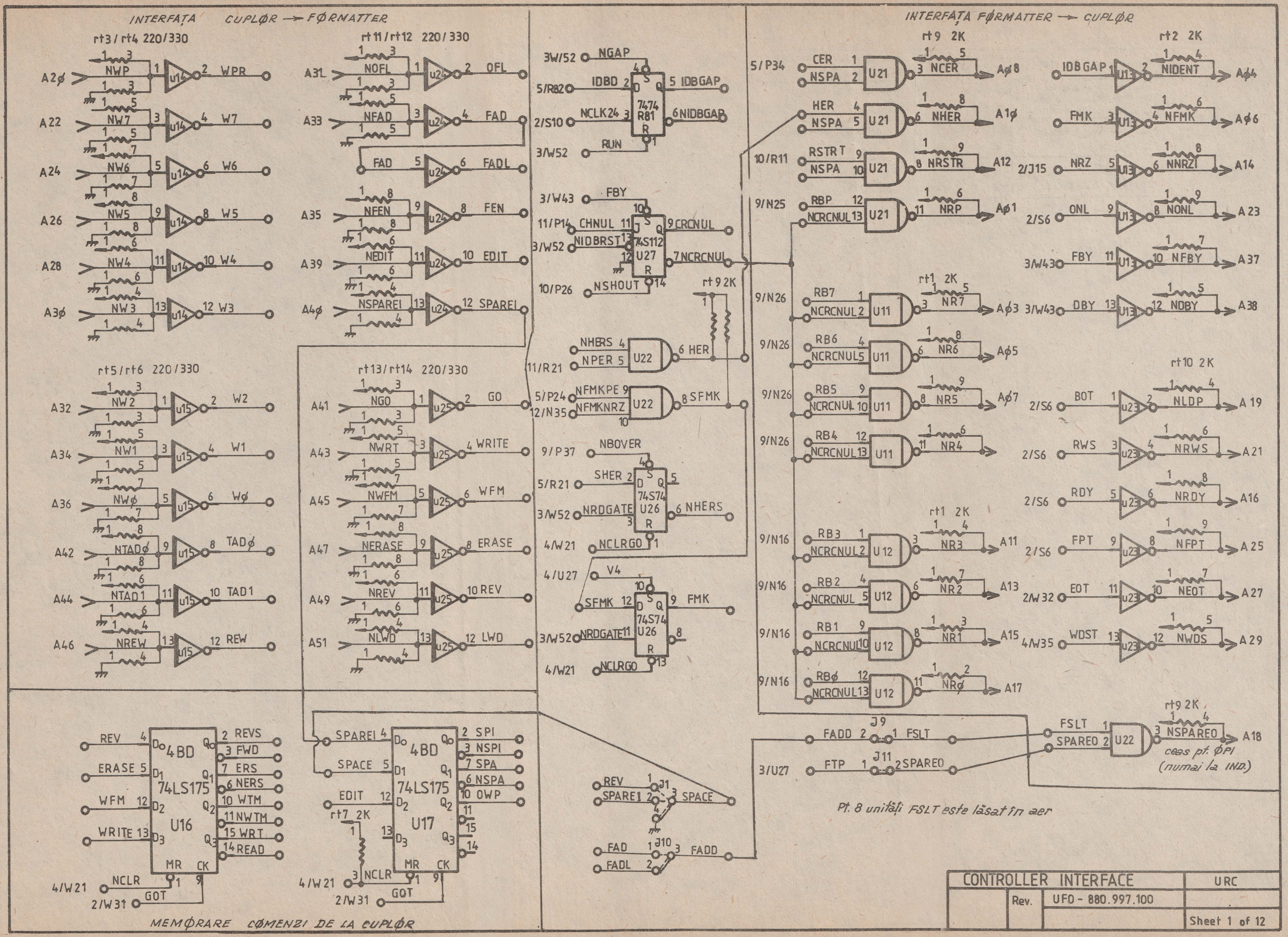
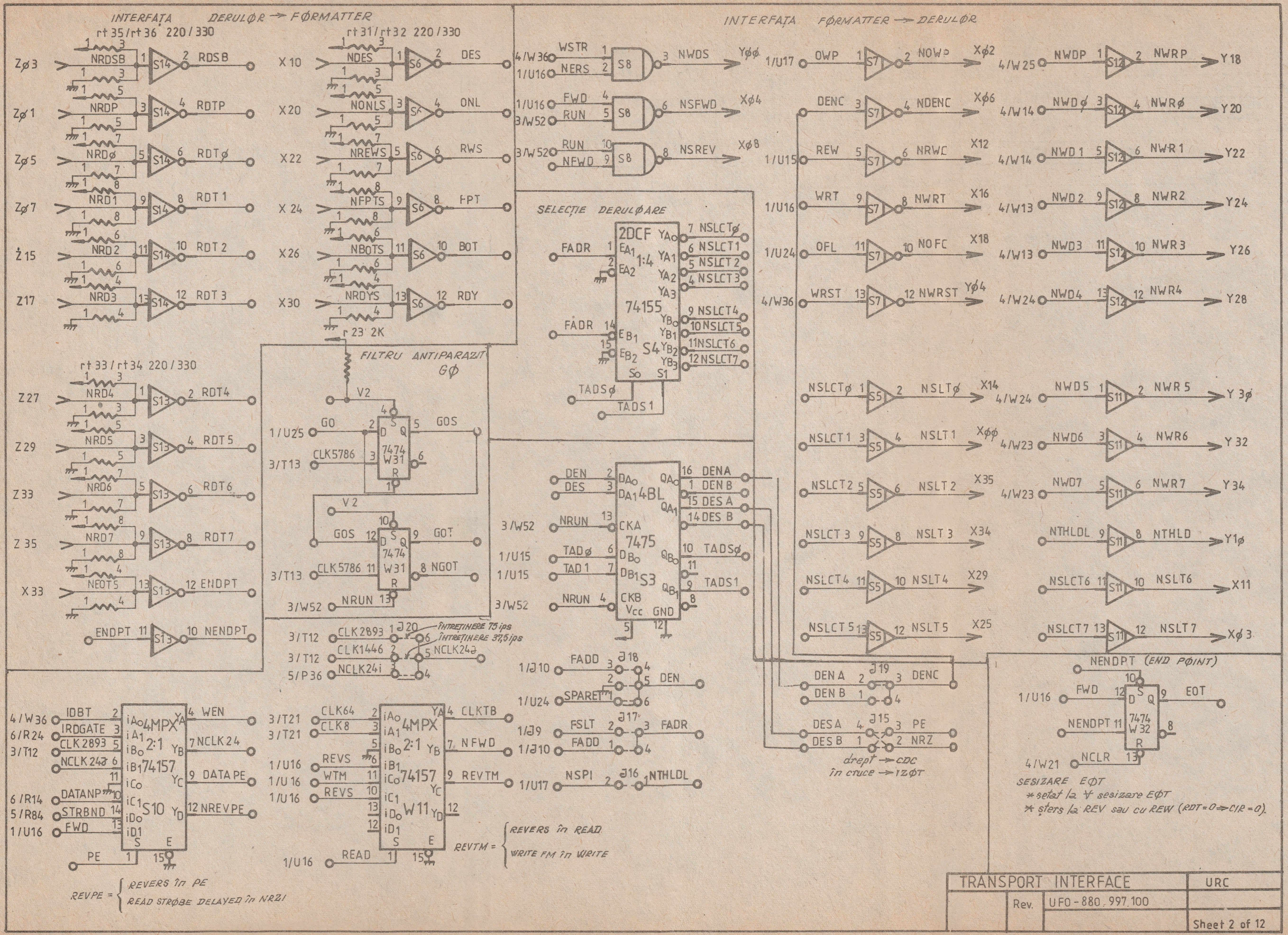
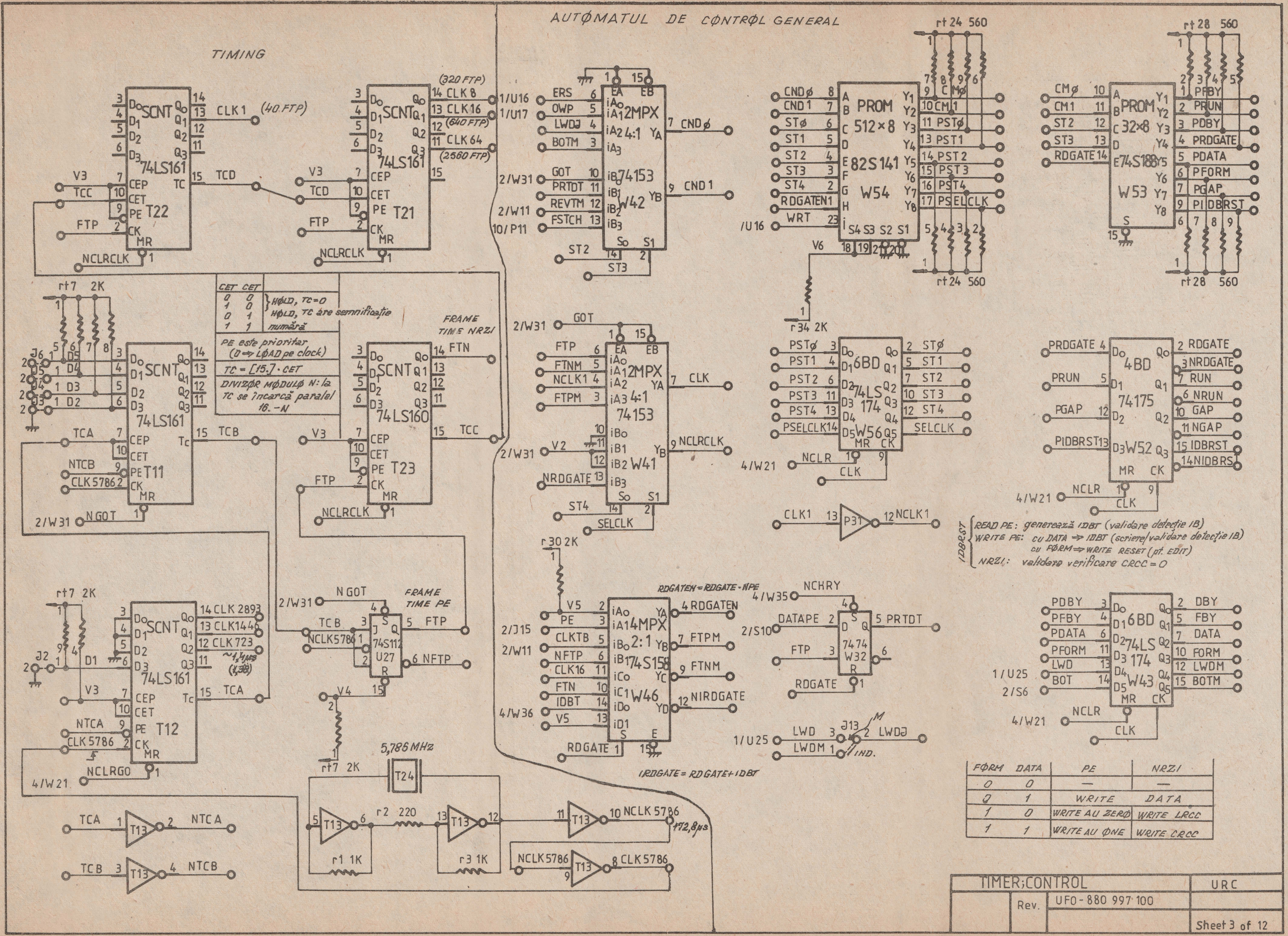

INTERFAȚA CUPLOR → FORMATTER
rt3/rt4 220/330
A2ø NWP WPR
A22 NW7 W7
A24 NW6 W6
A26 NW5 W5
A28 NW4 W4
A3ø NW3 W3
rt11/rt12 220/330
A31 NOFL OFL
A33 NFAD FAD
FAD FADL
A35 NFEN FEN
A39 NEDIT EDIT
A4ø NSPAREI SPAREI
rt5/rt6 220/330
A32 NW2 W2
A34 NW1 W1
A36 NWø Wø
A42 NTADø TADø
A44 NTAD1 TAD1
A46 NREW REW
rt13/rt14 220/330
A41 NGO GO
A43 NWRT WRITE
A45 NWFM WFM
A47 NERASE ERASE
A49 NREV REV
A51 NLWD LWD
3W/52 NGAP
5/R82 IDBD
2/S10 NCLK24
3/W52 RUN
7474 R81
IDBGAP
NIDBGAP
3/W43 FBY
11/P14 CHNUL
3/W52 NIDBRST
74S112 U27
CRCNUL
NCRCNUL
10/P26 NSHOUT
rt9 2K
NHERS NPER U22 HER
11/R21
5/P24 NFMKPE
12/N35 NFMKNRZ
U22 SFMK
9/P37 NBOVER
5/R21 SHER
3/W52 NRDGATE
74S74 U26
NHERS
4/W21 NCLRGO
4/U27 V4
SFMK 74S74 U26 FMK
3/W52 NRDGATE
4/W21 NCLRGO
INTERFAȚA FORMATTER → CUPLOR
rt9 2K
5/P34 CER NSPA U21 NCER Aø8
HER NSPA U21 NHER A1ø
10/R11 RSTRT NSPA U21 NRSTR A12
9/N25 RBP NCRCNUL U21 NRP Aø1
rt1 2K
9/N26 RB7 NCRCNUL U11 NR7 Aø3
9/N26 RB6 NCRCNUL U11 NR6 Aø5
9/N26 RB5 NCRCNUL U11 NR5 Aø7
9/N26 RB4 NCRCNUL U11 NR4
rt1 2K
9/N16 RB3 NCRCNUL U12 NR3 A11
9/N16 RB2 NCRCNUL U12 NR2 A13
9/N16 RB1 NCRCNUL U12 NR1 A15
9/N16 RBø NCRCNUL U12 NRø A17
rt2 2K
IDBGAP U13 NIDENT Aø4
FMK U13 NFMK Aø6
2/J15 NRZ U13 NNRZI A14
2/S6 ONL U13 NONL A23
3/W43 FBY U13 NFBY A37
3/W43 DBY U13 NDBY A38
rt10 2K
2/S6 BOT U23 NLDP A19
2/S6 RWS U23 NRWS A21
2/S6 RDY U23 NRDY A16
2/S6 FPT U23 NFPT A25
2/W32 EOT U23 NEOT A27
4/W35 WDST U23 NWDS A29
rt9 2K
FADD J9 FSLT
3/U27 FTP J11 SPAREO
FSLT SPAREO U22 NSPAREO A18
ceas pt. ØPI
(numai la IND.)
REV SPAREI J1 SPACE
FAD FADL J10 FADD
Pt. 8 unități FSLT este lăsat în aer
REV ERASE WFM WRITE
4BD 74LS175 U16
REVS FWD ERS NERS WTM NWTM WRT READ
4/W21 NCLR
2/W31 GOT
SPAREI SPACE EDIT
rt7 2K
4BD 74LS175 U17
SPI NSPI SPA NSPA OWP
4/W21 NCLR
2/W31 GOT
MEMORARE COMENZI DE LA CUPLOR
CONTROLLER INTERFACE
URC
Rev.
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Sheet 1 of 12

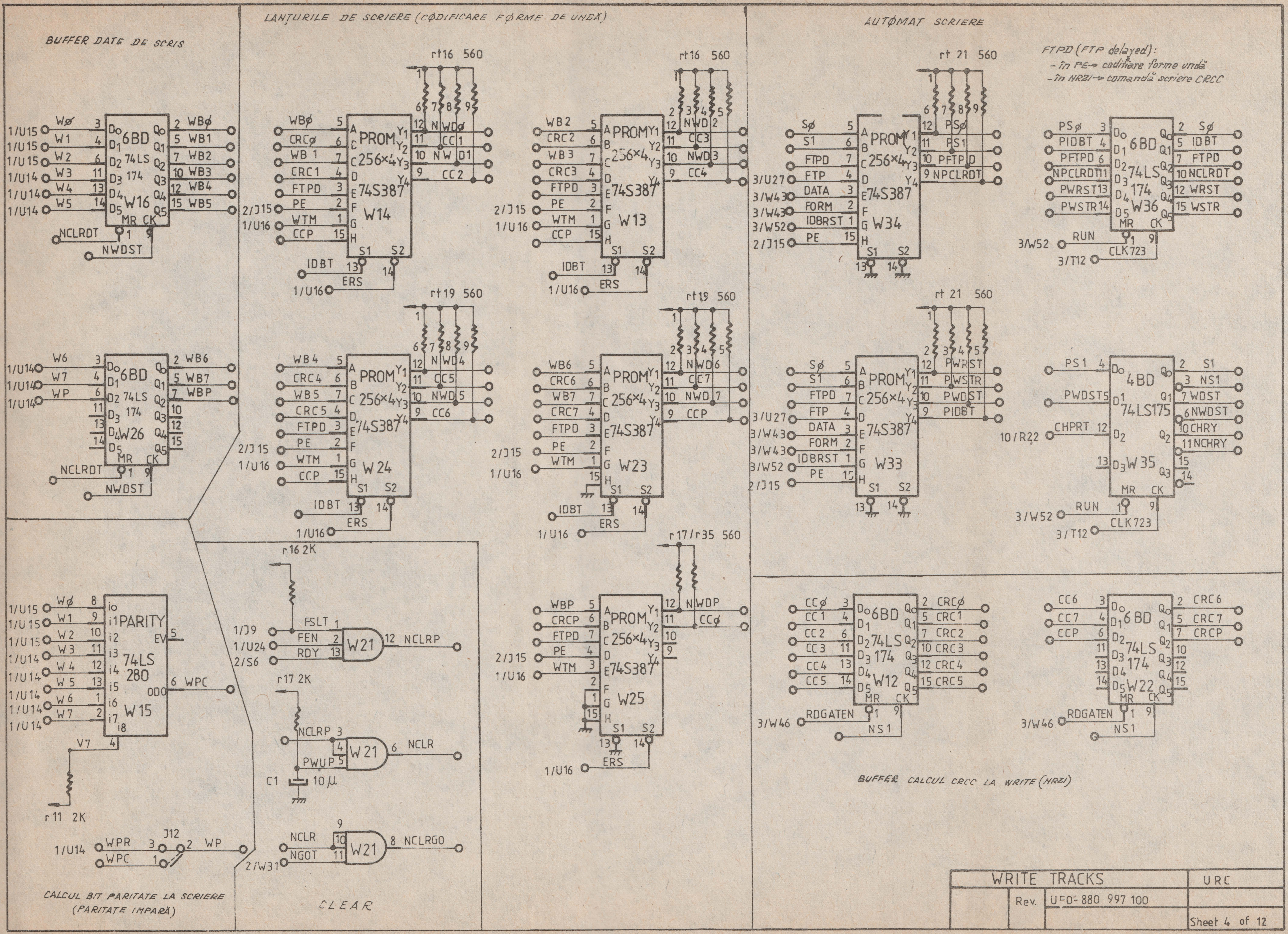


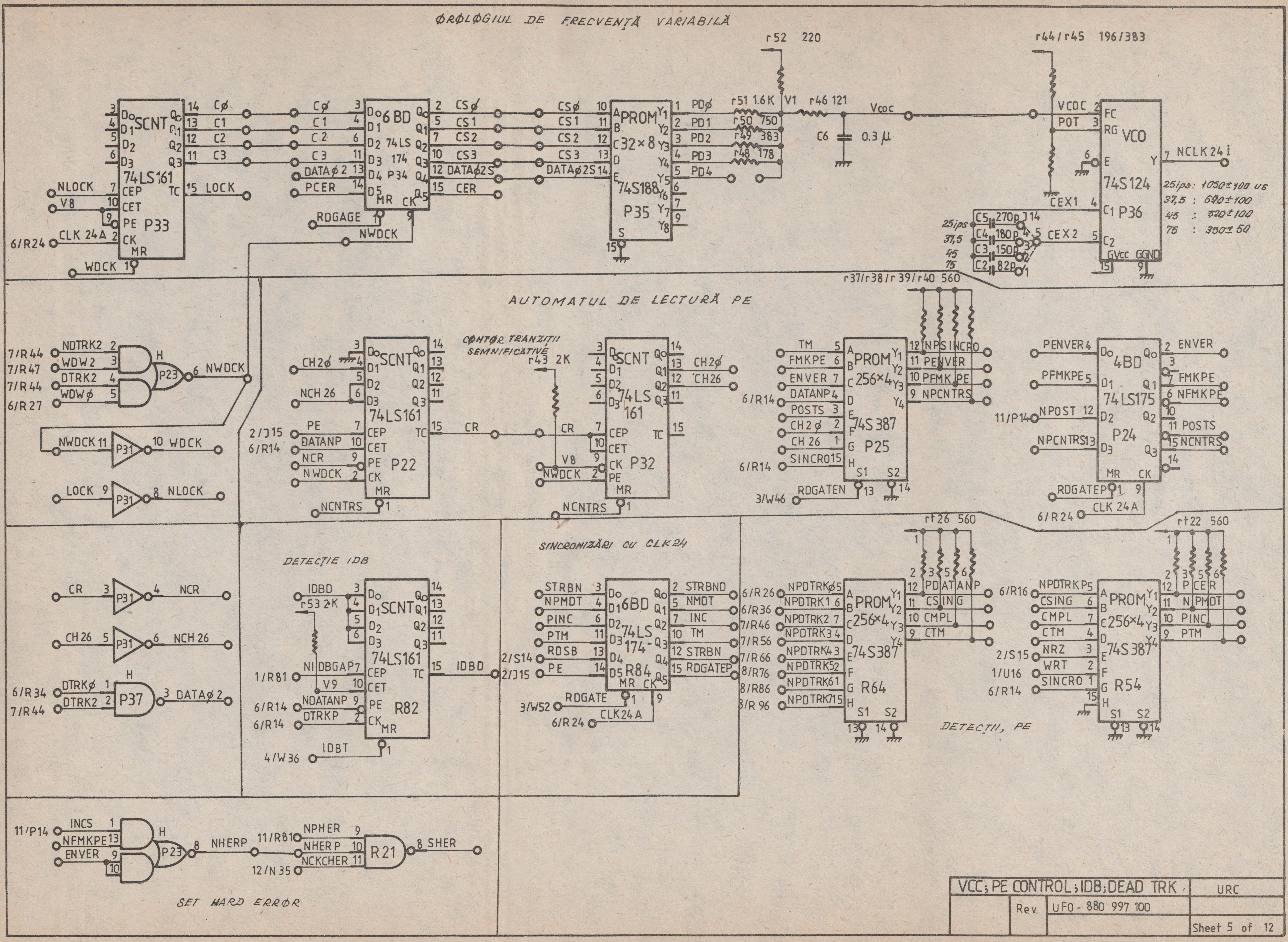
INTERFAȚA DERULØR → FØRMATTER
rt35/rt36 220/330
rt31/rt32 220/330
NRDSB S14 RDSB Zø3
NRDP S14 RDTP Zø1
NRDø S14 RDTø Zø5
NRD1 S14 RDT1 Zø7
NRD2 S14 RDT2 Z15
NRD3 S14 RDT3 Z17
NDES S6 DES X10
NONLS S6 ONL X20
NREWS S6 RWS X22
NFPTS S6 FPT X24
NBOTS S6 BOT X26
NRDYS S6 RDY X30
r23 2K
rt33/rt34 220/330
NRD4 S13 RDT4 Z27
NRD5 S13 RDT5 Z29
NRD6 S13 RDT6 Z33
NRD7 S13 RDT7 Z35
NEOTS S13 ENDPT X33
ENDPT S13 NENDPT
FILTRU ANTIPARAZIT Gø
V2
1/U25 GO 7474 W31 GOS
3/T13 CLK5786
GOS 7474 W31 GOT NGOT
3/W52 NRUN
INTERFAȚA FØRMATTER → DERULØR
4/W36 WSTR 1/U16 NERS S8 NWDS Yøø
1/U16 FWD 3/W52 RUN S8 NSFWD Xø4
3/W52 RUN NFWD S8 NSREV Xø8
SELECȚIE DERULØARE
FADR 2DCF 1:4 74155 S4
NSLCTø NSLCT1 NSLCT2 NSLCT3 NSLCT4 NSLCT5 NSLCT6 NSLCT7
TADSø TADS1
DEN DES 4BL 7475 S3 DENA DENB DESA DESB TADSø TADS1
3/W52 NRUN 1/U15 TADø TAD1
1/U17 OWP S7 NOWP Xø2
DENC S7 NDENC Xø6
1/U15 REW S7 NRWC X12
1/U16 WRT S7 NWRT X16
1/U24 OFL S7 NOFC X18
4/W36 WRST S7 NWRST Yø4
4/W25 NWDP S12 NWRP Y18
4/W14 NWDø S12 NWRø Y20
4/W14 NWD1 S12 NWR1 Y22
4/W13 NWD2 S12 NWR2 Y24
4/W13 NWD3 S12 NWR3 Y26
4/W24 NWD4 S12 NWR4 Y28
NSLCTø S5 NSLTø X14
NSLCT1 S5 NSLT1 Xøø
NSLCT2 S5 NSLT2 X35
NSLCT3 S5 NSLT3 X34
NSLCT4 S5 NSLT4 X29
NSLCT5 S5 NSLT5 X25
4/W24 NWD5 S11 NWR5 Y3ø
4/W23 NWD6 S11 NWR6 Y32
4/W23 NWD7 S11 NWR7 Y34
NTHLDL S11 NTHLD Y1ø
NSLCT6 S11 NSLT6 X11
NSLCT7 S11 NSLT7 Xø3
3/T12 CLK2893 ÎNTREȚINERE 75 ips
3/T12 CLK1446 ÎNTREȚINERE 37,5 ips
5/P36 NCLK24i NCLK24∂
1/∂10 FADD ∂18 DEN
1/U24 SPARE
1/∂9 FSLT ∂17 FADR
1/∂10 FADD
1/U17 NSPI ∂16 NTHLDL
DENA DENB ∂19 DENC
DESA DESB ∂15 PE NRZ
drept → CDC
în cruce → 1ZØT
NENDPT (END PØINT)
1/U16 FWD NENDPT 7474 W32 EOT
4/W21 NCLR
SESIZARE EØT
* setat la ∀ sesizare EØT
* șters la REV sau cu REW (RDT=0 ⇒ CIR=0).
4/W36 IDBT 6/R24 IRDGATE 3/T12 CLK2893 NCLK24∂
4MPX 2:1 74157 S10 WEN NCLK24 DATAPE NREVPE
6/R14 DATANP 5/R84 STRBND 1/U16 FWD PE
REVPE = { REVERS în PE; READ STRØBE DELAYED în NRZI
3/T21 CLK64 CLK8 1/U16 REVS WTM REVS
4MPX 2:1 74157 W11 CLKTB NFWD REVTM
1/U16 READ
REVTM = { REVERS în READ; WRITE FM în WRITE
TRANSPORT INTERFACE
URC
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Sheet 2 of 12



FØRM	DATA	PE	NRZI
0	0	—	—
0	1	WRITE	DATA
1	0	WRITE AU ZERØ	WRITE LRCC
1	1	WRITE AU ØNE	WRITE CRCC

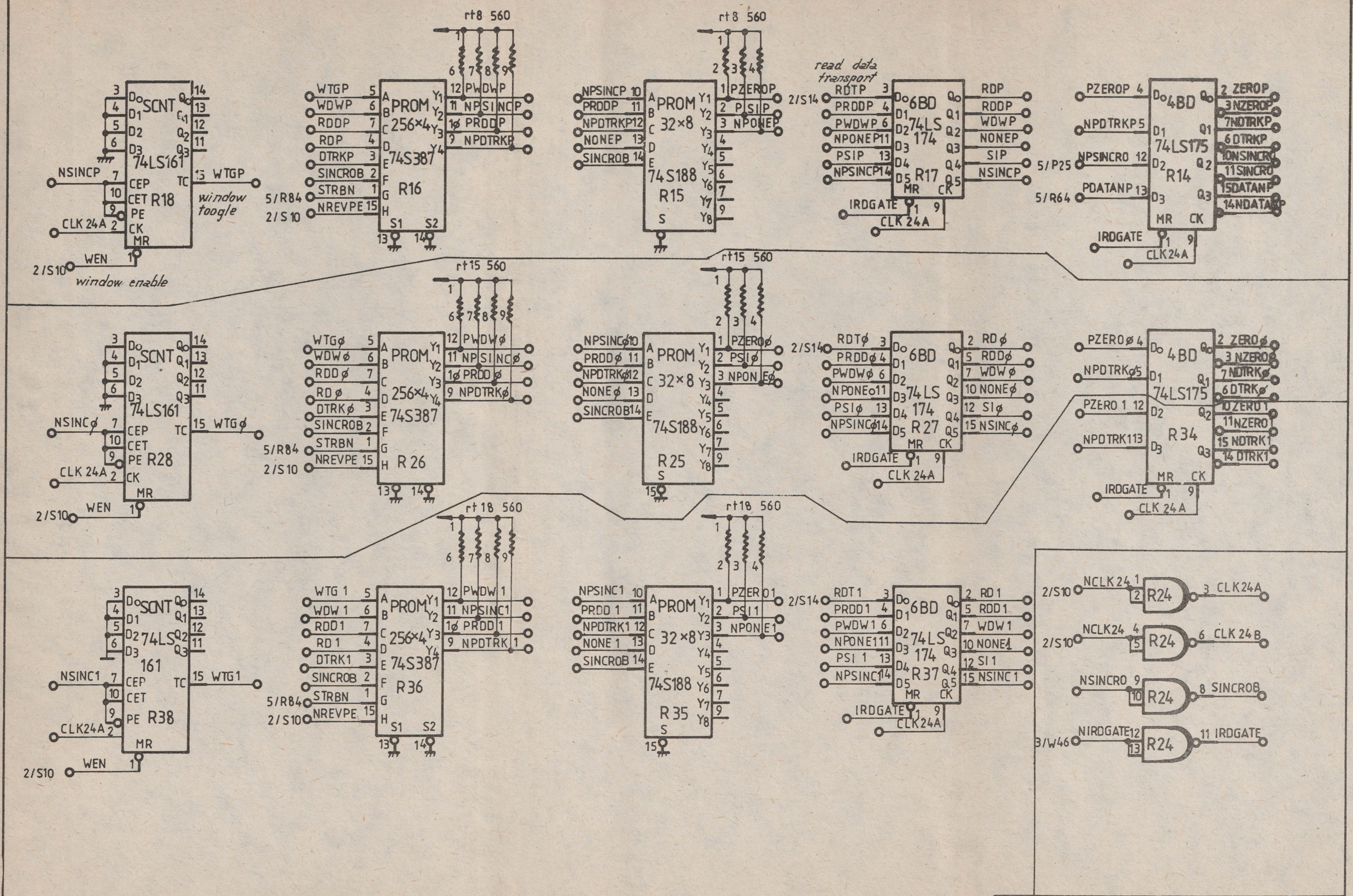
TIMER;CONTROL		URC
Rev.	UFO-880 997 100	
		Sheet 3 of 12


BUFFER DATE DE SCRIS
LANȚURILE DE SCRIERE (CODIFICARE FORME DE UNDĂ)
AUTOMAT SCRIERE
FTPD (FTP delayed):
- în PE → codificare forme undă
- în NRZI → comandă scriere CRCC
CALCUL BIT PARITATE LA SCRIERE
(PARITATE IMPARĂ)
CLEAR
BUFFER CALCUL CRCC LA WRITE (NRZI)
WRITE TRACKS
URC
Rev. UFO-880 997 100
Sheet 4 of 12



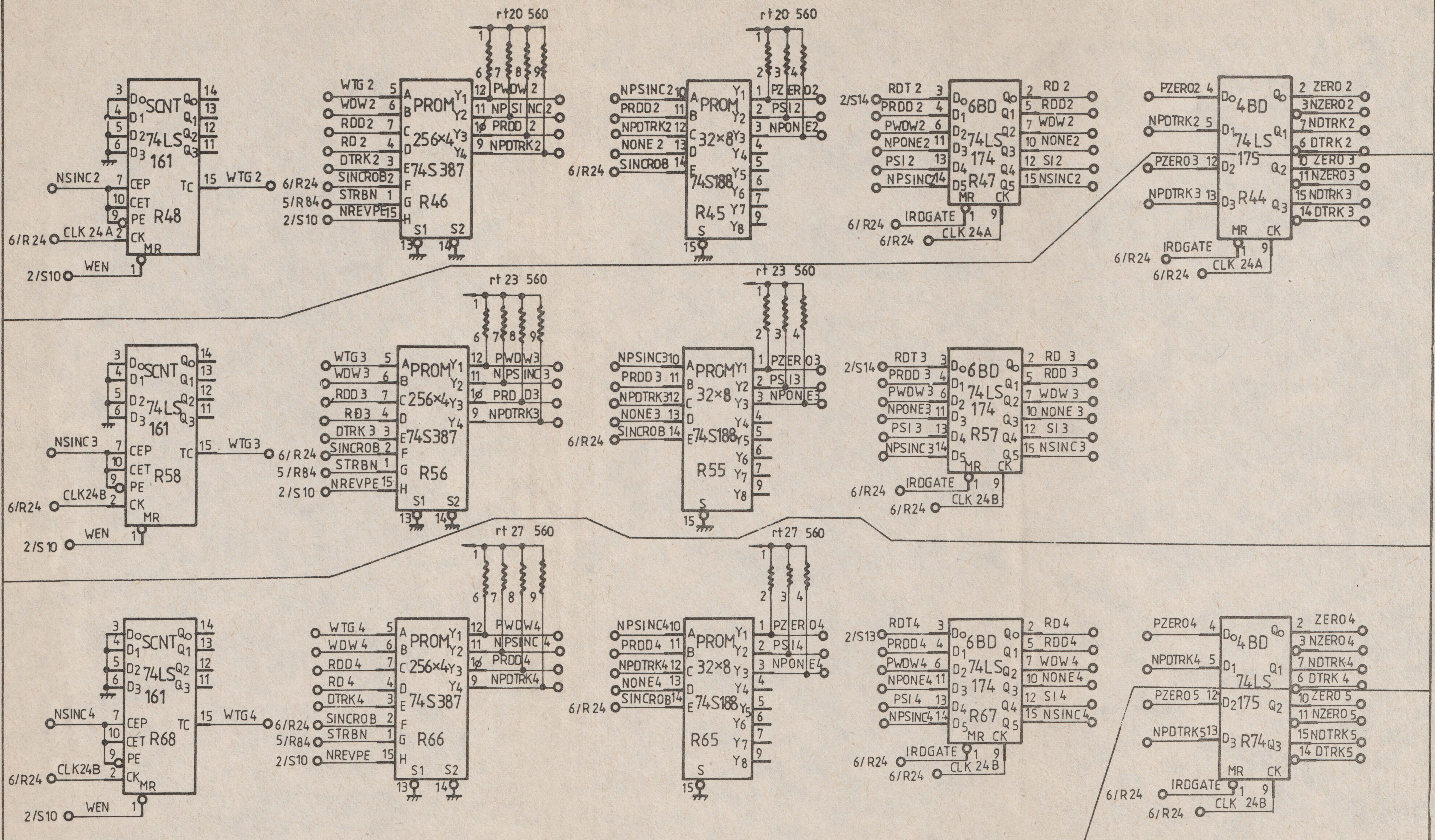
ØRØLØGIUL DE FRECVENȚĂ VARIABILĂ
74LS161
P33
6BD
74LS 174
P34
PROM
32×8
74S188
P35
74S124
P36
VCO
r52 220
r44/r45 196/383
r51 1.6K
r46 121
C6 0.3 μ
25ips: 1050±100 US
37,5 : 690±100
45 : 570±100
75 : 350±50
AUTOMATUL DE LECTURĂ PE
CØNTØR TRANZIȚII SEMNIFICATIVE
r43 2K
74LS161
P22
74LS 161
P32
P23
P31
r37/r38/r39/r40 560
PROM 256×4
74S387
P25
4BD
74LS175
P24
DETECȚIE IDB
r53 2K
74LS161
R82
P37
SINCRONIZĂRI CU CLK24
6BD
74LS 174
R84
rt26 560
PROM 256×4
74S387
R64
rt22 560
PROM 256×4
74S387
R54
DETECȚII, PE
P23
R21
SET HARD ERRØR
VCC; PE CONTROL; IDB; DEAD TRK
URC
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LANȚURILE DE LECTURĂ (PISTELE P,0,1)



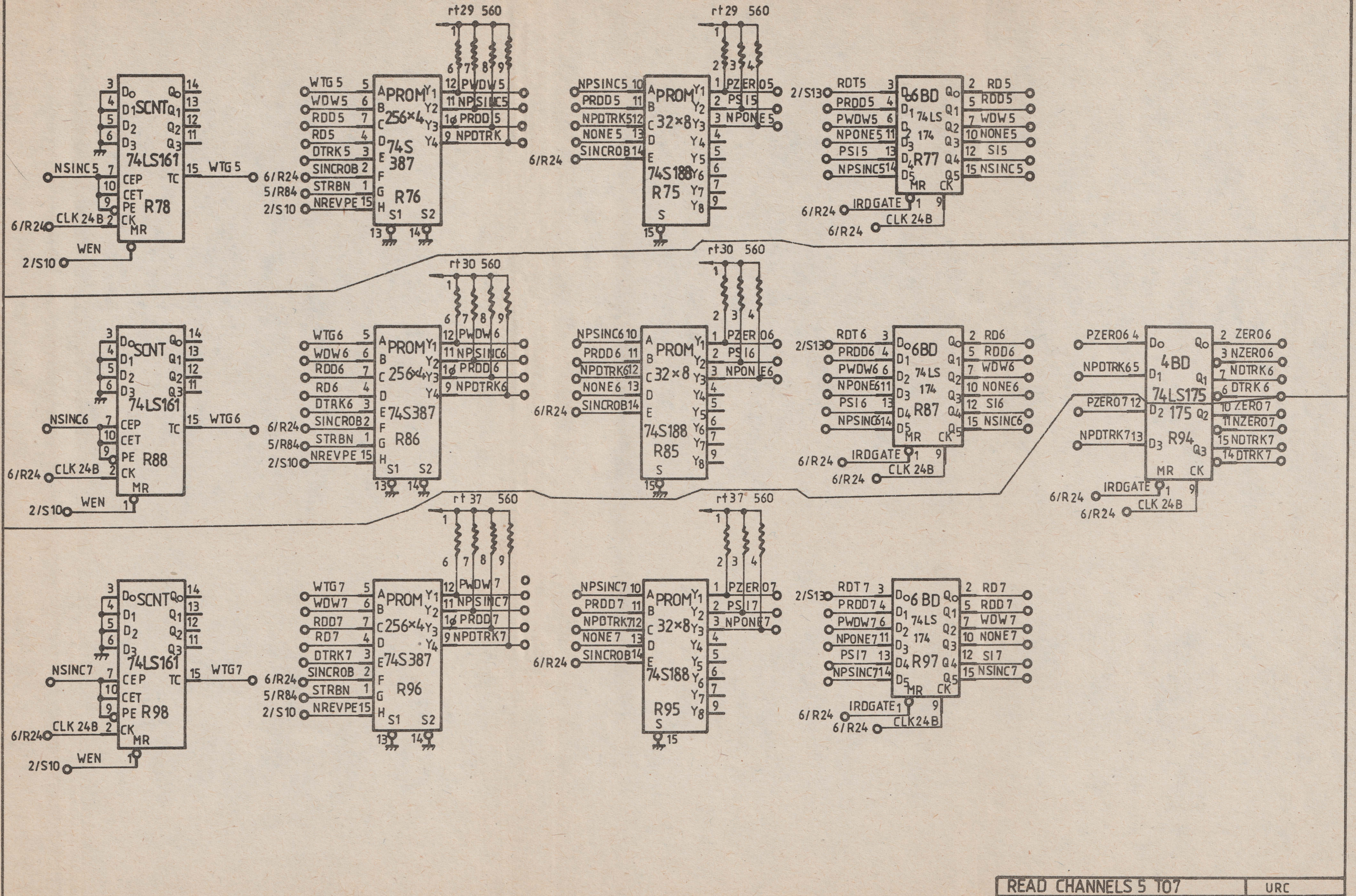
READ CHANNELS P 101		URC
Rev.	UFO-880 997 100	
		Sheet 6 of 12

LANȚURILE DE LECTURĂ (PISTELE (2,3,4)

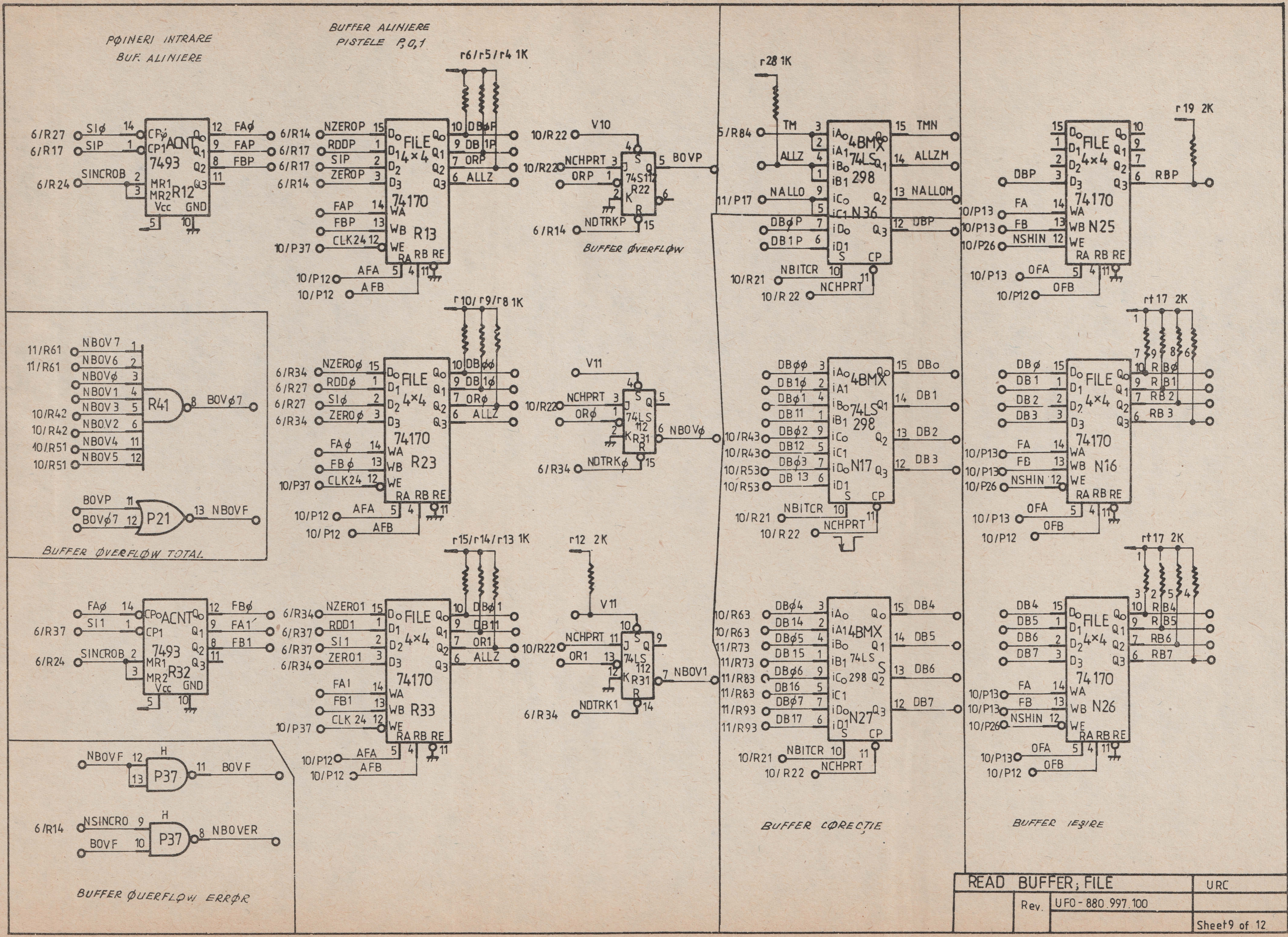


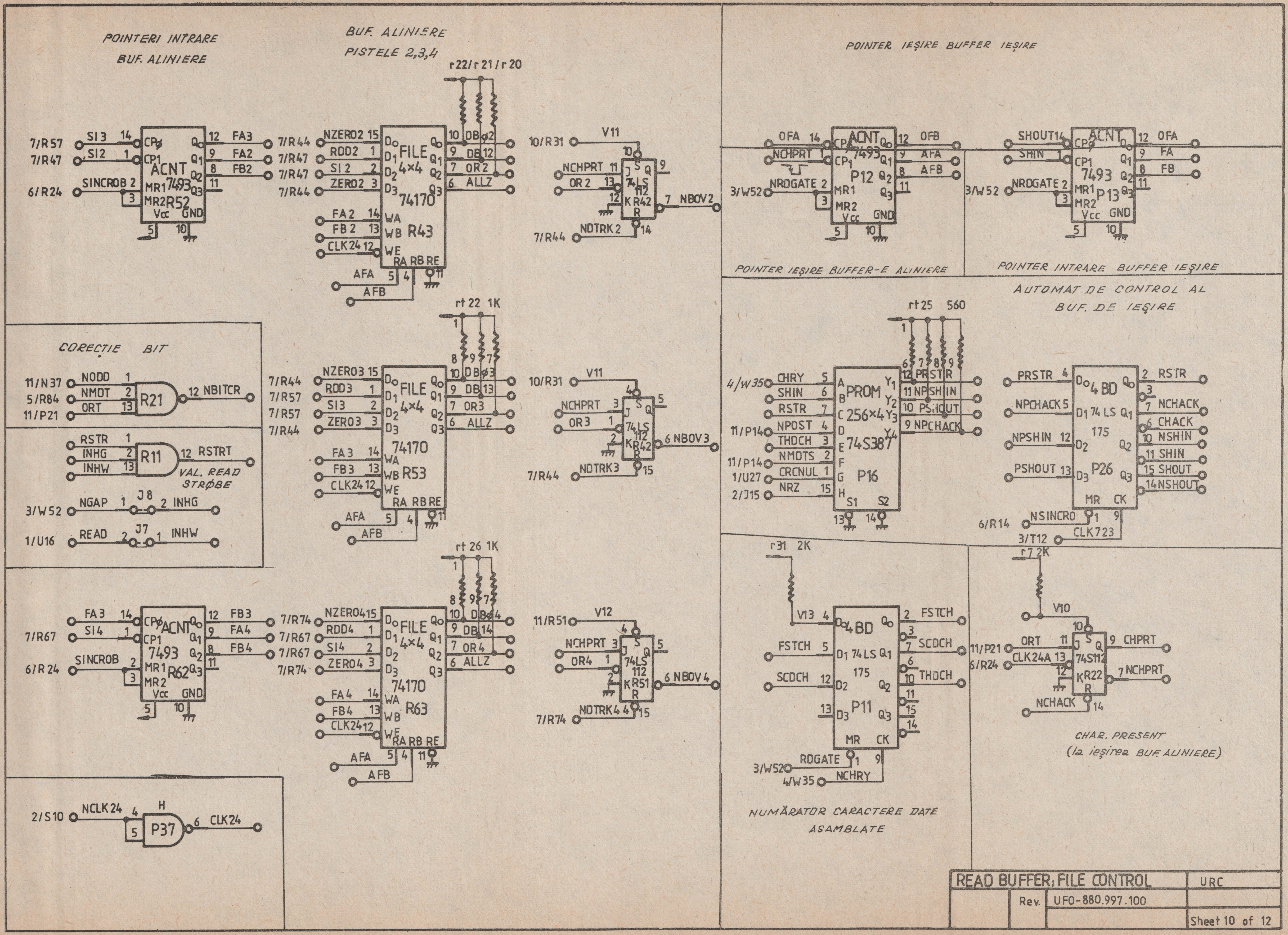
READ CHANNELS 2 TO4	URC
Rev. UFO- 880 997 100	Sheet 7 of 12

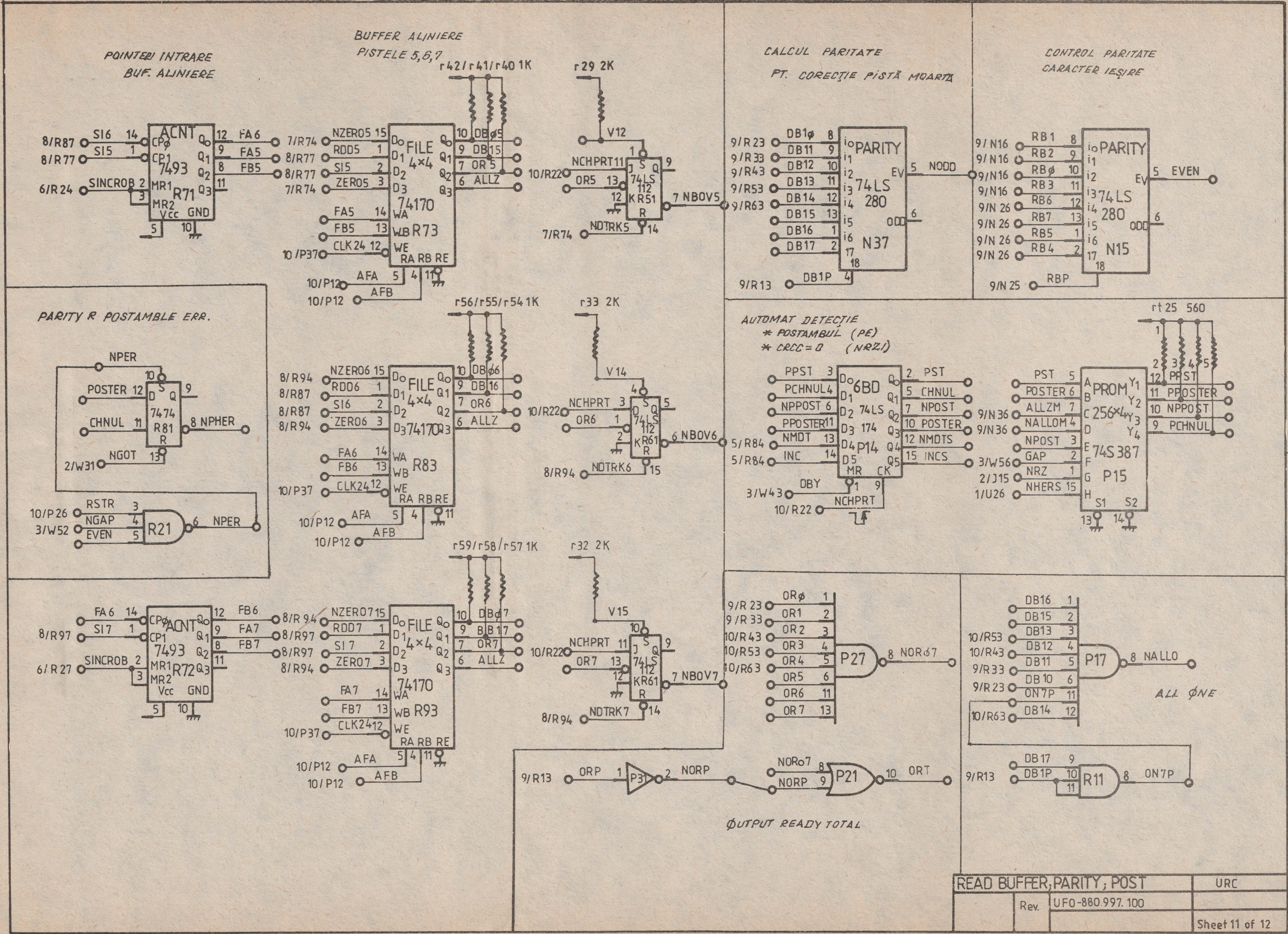
LANȚURILE DE LEGĂTURĂ (PISTELE 5,6,7)



READ CHANNELS 5 TO 7		URC
	Rev.	UFO- 880 997 100
		Sheet 8 of 12


POINERI INTRARE
BUF. ALINIERE
BUFFER ALINIERE
PISTELE P,0,1
BUFFER OVERFLOW
BUFFER OVERFLOW TOTAL
BUFFER OVERFLOW ERROR
BUFFER CORECTIE
BUFFER IESIRE
READ BUFFER; FILE
URC
Rev. UFO-880.997.100
Sheet 9 of 12

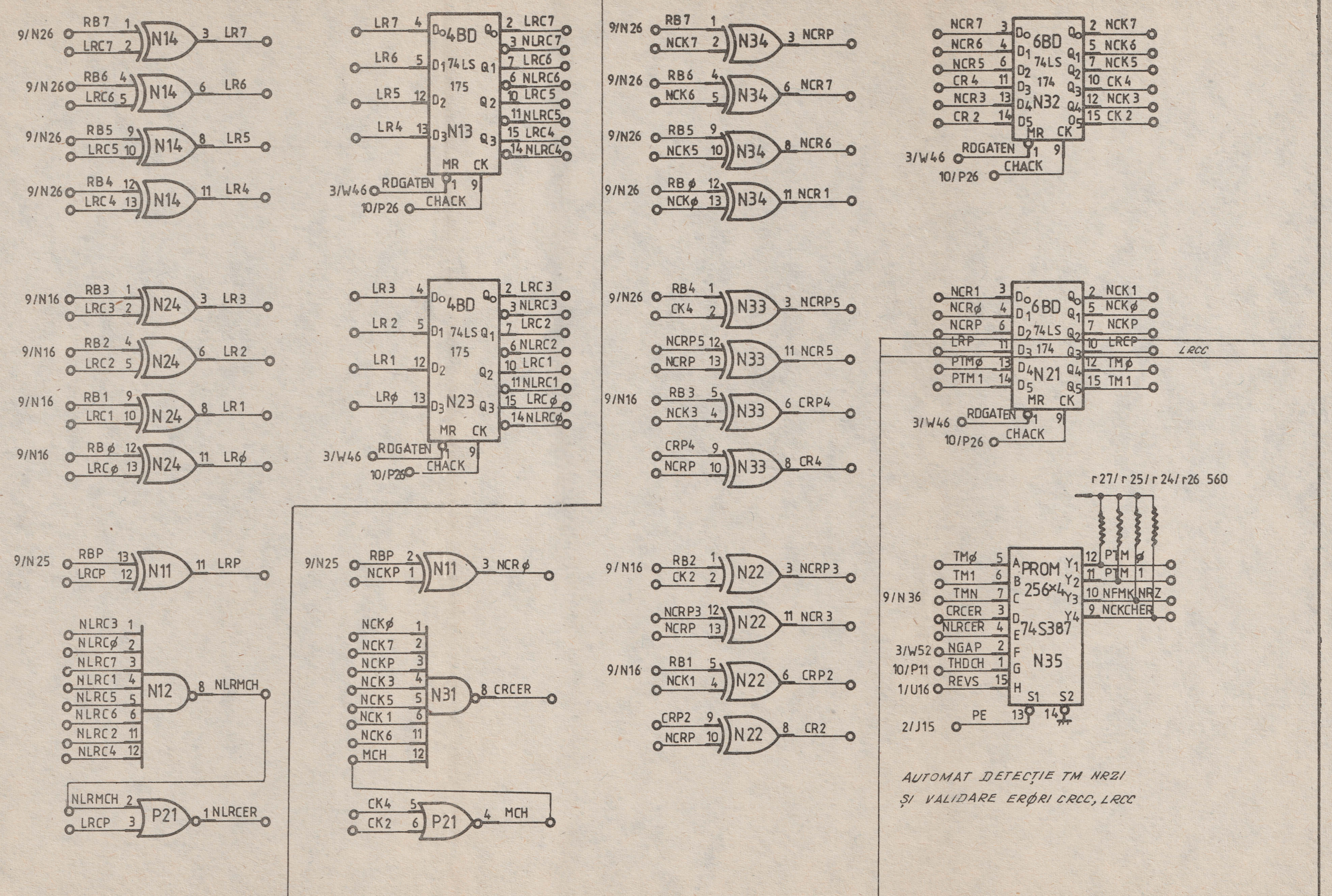

POINTERI INTRARE BUF. ALINIERE
BUF. ALINIERE PISTELE 2,3,4
POINTER IEŞIRE BUFFER IEŞIRE
POINTER IEŞIRE BUFFER-E ALINIERE
POINTER INTRARE BUFFER IEŞIRE
AUTOMAT DE CONTROL AL BUF. DE IEŞIRE
CORECŢIE BIT
VAL. READ STRØBE
CHAR. PRESENT (la ieşirea BUF. ALINIERE)
NUMĂRATOR CARACTERE DATE ASAMBLATE
READ BUFFER; FILE CONTROL
URC
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Sheet 10 of 12



READ BUFFER, PARITY; POST	URC
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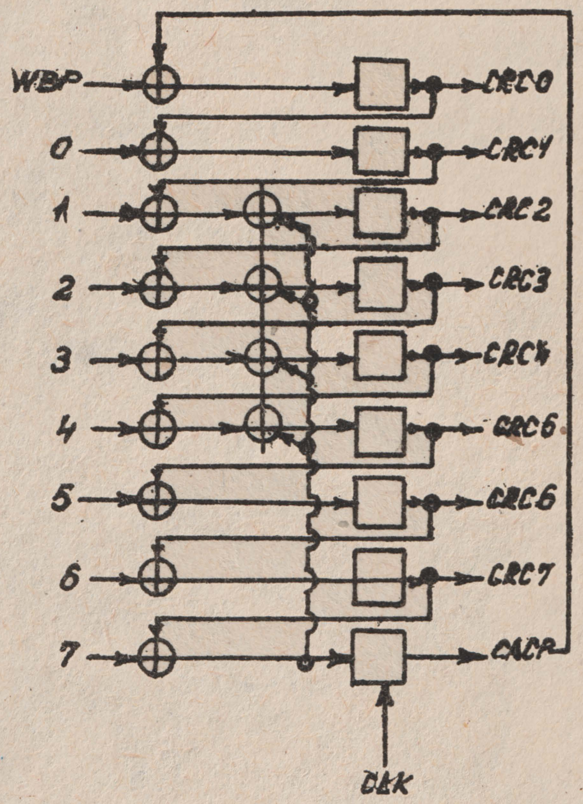
CALCUL LRCC (READ NRZI)

CALCUL CRCC (READ NRZI)



NRZ CONTROL		URC
	Rev. UFO-880.997.100	
		Sheet 12 of 12

V [ips]	T12 divide cu	T11 divide cu	D1 D2 D3 D4 D5	FTP [μs]	FIN [μs]	CLK1 [μs]	CLK8 [μs]	CLK16 [μs]	CLK64 [μs]
12,5	16.	9.	0 0 1 1 1	50	100				
25	8.	9.	1 0 1 1 1	25	50				
37,5	8.	6.	1 1 0 1 0	16,6	33,2				
45	8.	5.	1 1 0 1 1	13,9	27,8				
75	8.	3.	1 1 1 0 1	8,3	16,6				



PE		SCRIERE	DETECȚIE
BLØC	PREAMBUL	40. AU ZERØ + 1 AU ØNE	sincronizarea pe primele 20 tranziții (SINCRØ) 26. ≤ AU ZERØ s ≤ 72. tranziții*
	DATA	caractere din WB_i + paritate impară pînă la LWD - LAST WØRD	după primul "1" pînă la detecție PØSTAMBUL (pe fiecare pistă as
DATE	PØSTAMBUL	1 AU ØNE + 40, AU ZERØ	1 ALL ØNE urmat de 3 AU ZERØ consecutive 26. ≤ AU ZERØ s ≤ 72. tranziții*
NØRMAL GAP		AU ERASE (850 FTP pe ØN FLY)	lipsă tranziții 3FTP (după detecție bloc-primul caracter de date).

FTPD în PE

1°. FØRM = 0 DATA = 0 ⇒ FTPD = 0

2°. FØRM = 1 DATA = 0 ⇒ FTPD = Delayed ($\overline{FTP}$) ($\Delta = 1{,}5\,T_{CLK\ 723}$)

3°. FØRM = 1 DATA = 1 ⇒ FTPD = Delayed (FTP)

4°. FØRM = 0 DATA = 1 ⇒ FTPD = Delayed ($\overline{FTP}$)